

ABSTRACT OF THE DISCLOSURE

An XOR gate receives an input from a pair of read data lines to output a self-precharge signal when there is an increased potential difference between the paired read data lines. Thus, immediately after the increased potential difference between the paired read data lines occurs upon issuance of a read command, a precharge operation is autonomically performed. Therefore, no external precharge command is necessary when the read command is issued and thus a higher-speed operation is easily achieved.